



LAB ACTIVITY: THE UPS AND DOWNS OF PH

OBJECTIVE: Students will:

- ✚ Understand the basics of the pH scale
- ✚ Test household products to determine acid/base and
- ✚ Relate this knowledge to ocean acidification.

MATERIALS:

- ✚ Several clean glass containers
- ✚ Blue litmus paper
- ✚ Red litmus paper
- ✚ Several liquids to test
- ✚ Copy of the pH Scale

NOTE: Prior to the lesson, collect substances from home to be tested. They should be liquids or substances that will dissolve in water. Such things as baking soda, vinegar, lemon juice, orange juice, very diluted ammonia cleaner, diluted bleach, diluted oven cleaner, tap water, or acids and bases.

PROCEDURE:

1. Have the students prepare a class data table on the board, such as the one below, on which to record their results.
2. Group the students into teams and assign several substances to each team for testing. Have a team recorder enter the group's results on the board.
3. For each substance to be tested, list its name and the reaction of a piece of red litmus and of blue litmus. Have each substance tested with both colors of paper.
4. The students should make their own record of how each substance reacted on the **ACID TEST DATA SHEET**. Have the students classify the substances as acid, base, or neutral and then answer the **ANALYSIS** questions.